

Serial No.: 10/696,742  
Art Unit: 2877

Attorney's Docket No.: 081468-0306518

**Amendments to the Claims:**

Please cancel claims 1, 3-7 and 19 without prejudice or disclaimer, and kindly amend claims 2, 8-10, 16 and 20 as indicated below. This listing of claims replaces all prior versions, and listings, of claims in this application.

**Listing of Claims:**

1. (Cancelled)
2. (Currently Amended) The inspection method according to claim 8 ~~claim 1~~, wherein said test pattern is sensitive to the at least one type of aberration.
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)

8. (Currently Amended) An inspection method comprising:  
using a lithographic apparatus to pattern a beam with a test pattern having at least one  
degree of symmetry and to project the pattern onto a substrate;  
forming, at a surface of the substrate, a test structure corresponding to the test pattern;  
measuring a reflection spectrum of the test structure; and  
deriving, from the reflection spectrum, information indicative of an amount of at least  
one type of aberration of the lithographic apparatus,  
wherein the test pattern comprises a hexagonal array of dots, and~~The inspection method~~  
~~according to claim 7,~~ wherein said information includes information indicative of three-wave  
aberrations.

9. (Currently Amended) The inspection method according to ~~claim 8~~claim 7, wherein  
said information includes differences in the relative diameters of dots in at least one unit cell of  
the array.

10. (Currently Amended) An inspection method comprising:  
using a lithographic apparatus to pattern a beam with a test pattern having at least one  
degree of symmetry and to project the pattern onto a substrate;  
forming, at a surface of the substrate, a test structure corresponding to the test pattern;  
measuring a reflection spectrum of the test structure; and

deriving, from the reflection spectrum, information indicative of an amount of at least one type of aberration of the lithographic apparatus~~The inspection method according to claim 1,~~  
wherein said test pattern comprises first, second and third structures having a common basic symmetric form, and  
wherein said first and second structures have equal but opposite asymmetric deviations from the common basic symmetric form.

11. (Original) The inspection method according to claim 10, wherein said third structure has an additional asymmetric deviation as compared to said second structure.

12. (Original) The inspection method according to claim 11, wherein said information is based on a first difference between scatterometry signals obtained from said first and second structures and a second difference between scatterometry signals obtained from said third and second structures.

13. (Original) The inspection method according to claim 12, wherein said deriving information comprises dividing the first difference by the second difference.

14. (Original) The inspection method according to claim 10, wherein the first structure is a two-bar grating having bar widths  $w_1$  and  $w_2$ , where  $w_1$  is greater than  $w_2$ , and wherein the second structure is a mirror image of the first structure.

15. (Original) The inspection method according to claim 14, wherein the third structure is a two-bar grating having bar widths  $(w_2 + d)$  and  $(w_1 - d)$ , where  $d$  is less than  $(w_1 - w_2)$ .

16. (Currently Amended) The inspection method according to claim 10~~claim 1~~, wherein said measuring includes using a scatterometer.

17. (Original) The inspection method according to claim 16, wherein said measuring includes measuring reflections from the test structure at a plurality of angles.

18. (Original) The inspection method according to claim 16, wherein said scatterometer is a normal incidence scatterometer.

19. (Cancelled)

20. (Currently Amended) A device manufacturing method including the inspection method of claim 10~~claim 1~~, said device manufacturing method further comprising:

providing the substrate, the substrate being at least partially covered by a layer of radiation-sensitive material;

using a radiation system to provide the beam;

using a patterning structure to endow the beam with the test pattern in its cross-section;

and

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Art Unit: 2877

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projecting the patterned beam onto a target portion of the layer of radiation-sensitive material.

21. (Original) The device manufacturing method according to claim 20, wherein said measuring includes using a scatterometer.